THE

WESTERN

FARMER AND GARDENER,

AND

HORTICULTURAL MAGAZINE.

Edited by { EDW. JAS. HOOPER, a Practical Farmer,
CHAS. W. ELLIOTT, a Practical Horticulturist

Illustrated by Charles Foster

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CINCINNATI:

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Elton Cherry

THE WESTERN FARMER AND GARDENER,
AND HORTICULTURAL MAGAZINE.

Vol. IV.] Cincinnati, February, 1844. [No. VII.

The Elton Cherry.

The TREES are strong and healthy, with dark brown wood; the shoots are rather drooping.

LEAVES, very large, doubly serrated. PETIOLES, about two inches long on the young wood, with large reniform glands near the top.

FLOWERS, large.

FRUIT, about the size of the Bigarreau, and a good deal like it, but much earlier, and with a longer stalk; heart-shaped, and rather pointed; COLOR, on the shaded side pale waxy yellow, mottled and dashed with rich red next the sun. FLESH, firm, but not so much so as that of the Bigarreau; very sweet and rich. STONE, middle-sized, ovate.

This valuable variety was raised in 1806, by Mr. Knight, from a seed of the Graffion, or Ambree Cherry, which had been fecundated by the pollen of the White-heart. It ripens about the time of the Mayduke, or soon after.

Lindley's Pom. Brit.

The celebrated Cedar Trees of Lebanon.

These form the subject of one of the landscape illustrations of the Bible, by Finden, published in London. They were sketched by C. Barry, and the engravings are in the first style of the art. J. H. Horne, on these far famed trees observes, that they are situated on a small eminence, in a valley at the foot of the highest portion of the mountain.

The land on the mountain side has a sterile aspect, and the trees are remarkable for being in a single clump.

By the natives they are called Arsleban. There are in fact two generations of trees; the oldest are large and massy, four or five, and even seven trunks, springing from one base; they rear their heads to an enormous height, spreading their branches afar; and they are not found in any other part of Lebanon, though young trees are occasionally met with.

The ancient cedars, those which superstition has consecrated as holy, and which are the chief objects of the traveller's curiosity, have been gradually diminishing in number for the last three centuries, as may be noted from the following record:

In 1550, Belloni found there twenty-eight in number.

In 1575, Ranwolf, twenty-four.

About 1600, Dandini, } twenty-
" 1650, Thevenot, } three.

In 1697, in Maundrell's time, they had dwindled down to sixteen.

In 1738, Dr. Pococke only found fifteen standing.

In 1810, Burckhardt, saw eleven or twelve; but there were 250 others of a very large size, about 50 of middling size. and more than 300 smaller and young ones.

And lastly, in 1818, Dr. Richardson found that the old cedars, *the glory of Lebanon*, were no more than seven in number.

In the course of another century, perhaps, not a vestige of them will remain, and the prediction of the prophets will be most literally fulfilled.

Trees of the fruits described and figured in this work, can usually be had at the nurseries in the vicinity of this city. All orders left at Mr. Parkhurst's Seed Store, on Lower Market st., will be attended to. It is sometimes the case, however, that they are not for sale here; the object, then, is to bring the variety into notice, so that some enterprising cultivators will take the pains to introduce it.

Farming by the Fireside.

This is, perhaps, the most pleasant part of the farmer's occupation in winter, and not the least profitable to himself and family. In the long evenings particularly, at this season, when he has just come in from his labors, the stock of all kinds having been well seen to for the night; with a bright blazing fire, and a good and plentiful supply on a clean table cloth, spread before him by the "gude-wife," with the cheerful faces of his young ones around him; his agricultural and other papers and books on the shelf, ready for his perusal and examination after his comfortable meal; what situation in life can be more full of rational and enviable happiness? It is then that, after attentively reading the mass of instructive matter his papers afford, in the shape of principles, experiments, facts, discoveries, and good addresses from both practical and learned men, in the wide field of agricultural and horticultural science and investigation—he lays down his plans of movement in all the different operations of husbandry to be followed by him hereafter.

It is then that he resolves, after maturely weighing the probabilities and improbabilities of this and that system, and of this and that method, to carry into full effect certain plans of improvement, derived, not from the two frequent blindness of custom or prejudice of habit, but by the clear light of science, followed by successful practice. At all events, he makes up his mind to set on foot a few trials, to the prudent extent of his ability and means within his reach; on a small scale, perhaps, at first, to prove by experience whether certain new practices, based on science. are not more productive of profit, more economical, labor-saving, or successful, than those with which, notwithstanding, he may have been familiar from childhood, and which he has been in the habit of seeing his neighbors follow from the time that "his memory knoweth not to the contrary."

He is, perhaps, forcibly struck with the fact, that farmers are too much accustomed to operate without calculation; or, in other words, when it can even be proved to them, on sure principles of science, that particular labors will indubitably produce particular results, and those results of the most profitable kind—they are too negligent or fearful to embark in those labors, by the expenditure of either time, industry, or money.

Thus in imagination, though in all the reality of truth, does the good farmer carry on his readings and lucubrations, or his mental farming processes, by the side of his own household deities—not forgetting the great bestower of his comforts—the Deity above all and beyond all—the "God of harvests." E. J. H.

The Animal Manager--Denton Offutt.

We give a few more instances of this remarkable man's treatment of different animals.

TO MAKE GENTLE COWS.

"First halter them with a strong rope to a suitable place, then commence salting and feeding them from the hand. Afterwards rub them all over, at different times, for three days, feeding and watering them three times a day. Do not feed them high, but keep them always ready to receive food and water. Rub them every time you feed. Do not strike them one blow, as that will make them fearful; nor will cattle milk kindly that are beaten or roughly used.

The above treatment will make the worst cows gentle. A little attention to calves, when very young, will make them ever after manageable."

There is something, perhaps, more fanciful and amusing, than true, (though ingenious,) in his selection of the qualities of the horse for the race, field, or saddle, by comparing them with different animals, united in him.—Hear him:

"First," he says, "three of woman—deep chest, full bosom, long hair. Three of the ox—eye. nostril, joints. Of mule—hoof, strength, perseverance. Of deer—head, legs, hair lays well. Of wolf—breast, loin, lope. Of sheep—face, pa-

tience, mildness. Of fox—ear, tail, foot. Of cat—walk, action, leap. Of snake—sight, memory, and moulting."

He says—and we subscribe to the doctrine—"Remove fear and give confidence, to make gentle horses and cattle."

TO TRAIN A HORSE TO STAND FIRE ARMS.

"First flash the gun before the horse; then rub him in the face the way of the hair, and let him smell the powder; and repeat it until he becomes gentle. If very bad, put him in a strong stall or pen, and fire before him and all around him, until he is free from fear.

"So with an umbrella. Go to him with it shut; then rub him in the face with the umbrella, still at a little distance. Do this four or five times. Then get on him, raise it, and hold it as high as possible; ride him about until he is used to it—but not in wind or rain. Repeat this the next day, and by these means he will soon be safe."

TO BREAK A HORSE OR OX FROM THE HABIT OF LAYING DOWN IN THE GEARS.

"Tie him down with a rope, so that he cannot get up for ten hours. Then, when he gets up, work him for one hour. Give him water from your hand, and feed him, as this tends to make him like you—removing fear and restoring confidence.

"If your horse has been 'baulked,' as it is termed, and will not pull, place him in a good team, and, when on smooth ground, stop the team; and, at the word, touch him up several times. In a short time, he will pull kindly. If the horse has been whipped, be kind, and be sure not to touch him behind, but on the face and legs."

Public Patronage of Agriculture.

When will mankind learn to discriminate justly between the real and the fictitious? When will they cease to be dazzled by the glitter of mere tinsel, while they overlook the solidity of the more valuable metal? How is it that they are carried away with the brilliancy merely of some warlike or political achievement, originating probably in nothing, and having the same unmeaning purpose for its ending, though abundantly filled up between the two with excitement, misery, or bloodshed; while those who labor for the benefit of the whole human race, in forwarding and supporting objects of unquestionable value and usefulness, are left in the shade, and seldom warmed by the cheering sunshine of public favor? What sacrifices are not made at the shrine of fashion by its votaries? What offerings of both money and praise are not willingly offered up at her altars, whilst the workmen in the fields of nature and of science, in which man's improvement is so much advanced, and his permanent happiness so much increased, are comparatively neglected and unsung? Is not this the case with agricultural and horticultural works, which are surely — though slowly and almost silently—promoting the good of the country at large, in not only causing "two blades of grass to grow where only one grew before," but making barrenness change into fertility, sterility into fruitfulness, and unsightliness to objects of beauty and good taste.

What has in a few years chiefly contributed to alter the appearance of our vegetable and fruit markets, from small trashy articles to those of fine size and flavor? And what further progress is there not yet to be made in these things, (and will undoubtedly follow,) from the circulation of periodical and standard works of this character, and by the Cincinnati Horticultural Society, among men who read and will practise what they read, and practising, will write what they practise; and are imitated by their neighbors and acquaintances, and by others again in concentric circles, almost *ad infinitum*; and, although we are but a few steps advanced from what may be called the dark ages of agricultural knowledge, we seem at this period, if we mistake not, to be opening on an era of more uncommon discoveries and enlightenment on these subjects, than it has ever been the fortune of man to witness; and it appears more than probable that the names of a Tull and a Davy, a Knight and a Liebig, will take that position, in the estimation of their fellow men, on the scroll of fame, which for utility and merit will be denied even to a Napoleon or a Wellington!

E. J. H.

Our Interest and the Public's.

To a man accustomed to reflection, it is a matter of no small surprise that there is so general an apathy on the part of the public, respecting those improvements which have either a direct or indirect bearing on their personal interests and comforts, to say nothing of luxuries. How is this to be accounted for? While numbers subscribe to almost any quantity of one-sided political, or light, trashy, literary publications—those works which have for their immediate object, the encouragement and production, in the best and most economical method, of all those articles which constitute the real wealth of a community, and contribute so much to health, good taste, and moral tendencies, are almost totally neglected and despised, or considered inadmissible and unworthy of patronage, on the ground that the persons applied to, to support a cause in which all have a stake, are not *practically* engaged in enhancing the value, or increasing the quantity of the useful products of the soil or the farm. We can readily understand and tolerate this in inconsiderate youth, but how men of maturer years and more thought can so regard, or rather disregard, the matter, we are at a loss to conceive. Can it be viewed as a thing of no importance, whether our markets are supplied with first rate, or indifferent, or decidedly bad, provisions, fruits, and vegetables, or not? Shall we rest contented to let this affair right itself in a long process of time? or shall we not rather, as rational beings, hasten the event when our families can be enabled to purchase, at reasonable prices of course, the first productions that the zeal, energy, and ingenuity of man can furnish? What is calculated to forward this great work so effectually here, (as similar establishments have done, over and over again, elsewhere,) as the Cincinnati Horticultural, and the Hamilton County Agricultural, Societies? Does any man in his senses doubt the good effected by such associations? Do they not stimulate all kinds of persons who cultivate almost the smallest portions of ground, to rival the world in producing the choicest varieties of fruit, vegetables, or flowers? It follows, then, as a necessary consequence, that such societies should possess an organ, in which to carry out towards perfection, the knowledge gained, and the discoveries made, by giving publicity to their proceedings. The press here steps in, as in other cases, with its Briarean arms, to accomplish its wonders. Without this lever, the efforts of man would comparatively lose their effect. It reaches a man's home, it brings him the information, he reduces it to practice: his neighbors witness his successful operations; or, if unsuccessful, they profit by his errors. Thus proceeds the onward strides of knowledge and intellect. Both practice and its imitation are "working double tides," united with a literary vehicle of intelligence, which is ever busily employed in spreading the benefits of improvement.

Citizens! the organ of the Cincinnati Horticultural, and Hamilton County Agricultural, Societies is now before you; it is for you to decide, whether it and the cause are worthy of your support. E. J. H.

Our Work.

It is our intention, in the Western Farmer and Gardener, to extend its subjects of information and interest to a wider range than has hitherto been embraced in its pages. In addition to the more legitimate paths of knowledge connected with the operations of the farm and the garden, we propose to examine the countless beauties displayed throughout the animal, vegetable, and mineral kingdoms, which bear the stamp of superiority that universally point to the infinite wisdom and boundless power of their great Creator. To the credit of modern times, the natural productions of the vast globe we inhabit, occupy now a considerable share of strict observation and profound re-

search; and we cannot but think that a few pages in each number, devoted to all those subjects which are either nearly, or even rather remotely, connected with the operations of the agriculturist, cannot but be grateful to him. It will have a tendency, too, to relieve in some measure the rather dry details of actual practice, and enliven treatises of a somewhat heavy character. Those persons who cannot be expected to take so much pleasure in the mere details of agricultural business, but who patronize the work and assist the cause and all parties concerned, although not engaged in agriculture themselves, will find an increasing interest in the perusal of our publication, by our enlarging the field of investigation and notices.

We shall, therefore, henceforward launch into the wide ocean of what is called natural history, and every thing relating to the works of nature's great Artificer; and we hope, in the next volume, (which will commence the ensuing autumn,) to enlarge our pages, to make room for this more extended field of knowledge, as well as for some other things, we have inview. E. J. H.

Preparing and Stuffing Birds.

Birds should be opened in the abdomen, the skin stripped down at the sides until the thighs can be drawn out, the legs severed at the knee joints, and the skin pealed from the calf of the leg, which should be freed from its muscular parts. The skin should then be separated around the tail, the bone of which should be severed from the pelvis, and all the skin disengaged as far as the wing. The bones of the wing should be parted at the shoulder joints, and the breast, the neck, and the head laid bare as far as the forehead. Then the skull should be separated from the vertebræ of the neck, cleared of its muscles, tongue, &c., the brain taken out, and all the parts supplied with arsenical soap. Afterwards the eye socket should be filled with cotton, and the skin carefully drawn over the skull. The wings should be split on the inner side, and the muscles about the larger bones taken out, and these parts, as well as the whole head, lined with arsenical soap. A piece of wood of the length of the body should then be placed with one point in the cavity of the head, and the other in the tail, in order to secure the whole skin. The abdomen should be filled with cotton, the feet then placed in order, and a band of paper or packing thread wound about the whole bird to secure the wings in their proper position; the bird should then be dried. Thus prepared it should be often turned round, which is still more necessary in mamiferous animals.

Arsenical Soap.—White arsenic and domestic soap, 1 lb; camphor, 4 ʒ; unslacked lime, 2 ʒ; Potash, 6 ʒ. As much warm water as the mixture requires.

The arsenic should be rubbed with water until it is finely pulverized. The soap should be melted, and the arsenic gradually mixed with the other substances, and the whole stirred over a slow fire until it is thoroughly mixed. The vessel which contains it must then be removed to some distance, and the preparation made in the open air. Arsenical soap may be manufactured out of arsenic and common soap, provided the other ingredients are not to be obtained.—*Manual of Nat. Hist.*

From the Cincinnati Atlas

Grafting Fruit Trees.

Grafting may be performed at any time through the winter. My practice is, in the fall, to secure a few cart loads of sand, (earth will answer, if that cannot be had,) in my cellar; then at the proper time, after the leaves are off of the trees, I remove my seedling stocks to the cellar, or secure them in some other situation where I can command them at any time when wanted. I then cut my grafts, which should always be the last year's growth, and in all cases, where it can be, from bearing trees. This done, I am prepared for winter work, in which I do not fail to employ all the stormy days, which would otherwise be lost; and, as before observed, having all my materials at command, when a stormy day occurs so that my hands are driven in doors, I rally them around a good fire, and commence the work of grafting, by cutting my roots into lengths of from four to six inches, according to the number of small fibres attached thereto; then I cut my grafts to two or three

eyes; then I commence by cleft grafting, which I think decidedly the surest and simplest method for root grafting; and I am not particular in which I make the split, in the roots or grafts, whichever happens to be the stoutest. Care of course must be observed that the cut and split are performed with a sharp knife, so that the surface is left smooth, and the bark of the graft and root form a perfect union on one side, so that the sap vessels come in contact, by which the sap may flow freely from one to the other. This is of the utmost importance, for without this no union can be formed, and the consequence is the graft must perish. This flow of sap is as necessary to the life of the graft, as the blood which flows through the veins of a man's arm, which has been broken and set by the skilful physician, is for its successful reunion and healing. This done, I secure the parts by binding them with a shred of Russia matting, or woollen yarn. I find it quite unnecessary to apply wax or clay. I then deposit them in the cellar, in the sand before spoken of, in rows close together, leaving the top of the grafts exposed, taking care to keep a proper division between each sort.

In this position they remain until March or April, when they are transferred to their proper place in the nursery. I have often found, on removing them from the cellar, that quite a healing had been effected between the parts. I have never found it necessary to pay any attention to the removal of the binding, as it always decays in time to admit of the expansion of the plant. They should be planted sufficiently deep to secure two inches of earth over the part where the union is effected, so as to exclude the sun and air from it. Every economist must see the great advantage of this mode of grafting over all others, where a large amount is to be performed, and it will need no argument to induce a trial.

Trees produced from this mode of grafting are much handsomer, if not better, than those grafted above ground, or by budding, as the body is always uniform, and not liable to overgrow the original stock, which, to say the least of it, presents a very unsightly appearance. This mode of grafting, however, is more particularly applicable to apples than any other sort of fruit.

I remain yours, with much respect,

Spring Garden, Jan. 23, 1844. A. H. ERNST.

Wheat thrown out of the ground by frost, should be pressed in again by passing a roller over it.

Economy of Fodder.

A penny saved, is two-pence earned.—Franklin.

Too many of our agricultural brethren, I fear, are obnoxious to the charge of being "penny wise and pound foolish," in some of their affairs. In the feeding of stock, for instance, farmers who are scrupulously vigilant in economizing in other matters, and whose every dime is husbanded to the best advantage, often unconsciously lose much. It has been repeatedly demonstrated by experiments, at least to many minds conclusively, that by the simple process of cutting fodder for horses and neat stock, a very considerable saving may be easily effected. The machinery, or instrument rather, used for this purpose, is extremely simple, and such as may be supplied by any person possessing the most ordinary attributes of constructive genius, in a few hours, by himself. With this apparatus, a single hand will cut a sufficiency of hay, straw, butts, or top-stalks, for a dozen or fifteen head of cattle, in the brief space of half an hour; and this fodder, so cut, moistened with warm water, if the weather be cold, and fed out with a slight quantum of meal, will be thrice as beneficial to the animals partaking of it, as if fed to them in its uncut state. No 'orts' are made in this way, and the large and coarse portions are all devoured, instead of being rejected and thrown away.

By adopting this system, a farmer will easily convert all the straw, stalks, &c. produced on his farm, to a valuable and economical use. If he has plenty of these materials, he may, if he thinks it judicious, mix hay with it in such proportions as may seem to him best calculated to promote the animals' health and growth. Or he may mix straw, stalks, and hay, and then add water, meal, and salt. This makes a rich feed, and is excellent for milch cows, and by many thought to be superior, on many accounts, to hay and grain. Some farmers, who have but small stock, add boiled potatoes to the above materials, which is doubtless a valuable addition, but objectionable when one has a large stock on the score of its expense. For my own part, I prefer feeding the potatoes separate, and in their natural state, say once a week. This prevents costiveness, and as the potatoes are laxative, conduces greatly to the health of the animals. If those who have never tested this plan, will adopt it, they may rest assured of the best and most flattering results.—*Boston Cultivator.*

A PRACTICAL FARMER.

Strange mode of curing a Vicious Horse.

I have seen vicious horses in Egypt cured of the habit of biting, by presenting to them, while in the act of doing so, a leg of mutton just taken from the fire: the pain which a horse feels in biting through the hot meat, causes it, after a few lessons, to abandon the vicious habit.—*Burckhardt.*

Points of a Good Horse.

COL. S. JAQUES' *Remarks on the Prominent Points to be observed in the selection of a Useful Horse, more particularly for a Roadster.*

I prefer a lightish head, neatly set to the neck; the neck rising promptly and strong from the shoulders and withers, and somewhat crowning or curving at the top, tapering to the head with a strong crest. Shoulders well laid in, spreading well back, something like a shoulder of mutton. Chest deep, and a little projecting. Withers rising moderately high, and inclining well into the back. If the withers are low and flat on the top, the horse will be inclined to plunge to the ground, and when fatigued will stumble or fall. Neither must the withers rise too high, as he will then appear as though on stilts: both extremes are serious impediments to fine and safe action. Ribs should be well rounded out. Back strait and short, well coppeled, that is, the hips well thrown forward, forming a strong loin, and giving a long lever from the point of the hip to the hock-joint of the hind leg. The horse should be a good length from point of shoulder to the extreme point of buttock. Dock strong, and well covered with hair. Close and snug immediately under the dock. The muscles on the inner part of the thighs should be full and well shut together. If there is a large cavity under the dock, the horse will be inclined to scour, and is probably only a door-yard horse.

The neck, head and body form a lever, resting on the fore legs as a fulcrum, the head being at the end of the lever. If the neck be very long and the head heavy, or if the neck be quite short, and the head short and light, either of these extremes very much affects the regular clips and action. The whole machine should be of good proportion.

The fore arm is a very important lever, as regards the safety of a roadster. The legs should be clean and free from blemish, and when in motion move true, and free from cutting or warbling. The feet should be round and steep; heels broad; coronet and posterns of medium length. Shank or cannon, short, broad and flat, showing the tendons or sinews. The knee large and well dropped down; the arm above the knee long, and the muscles large and full. The top of the shoulder where matched to the withers, should not be so heavy-loaded with muscles as to impede their action. No objections to the fore feet moving pretty close, but not so as to cut.

Much depends on the form of the hind leg and the power of that lever, as regards strength and speed. The shank, hock and thigh should be broad and flat, something like that of an ox; and if so, when in motion will operate like a plank sprung edgewise and then let fly. If the hind legs when at good speed open and spread a little, no objection, provided there is a good free action to the hock joint.—*N. E. Farmer.*

Copy of Baer & Gouilart's Patent.

To all whom it may concern: Be it known, that we Charles Baer and John Gouliart, of the city of Baltimore, in the state of Maryland, have invented certain new and useful improvements in the manner of making manure, which has been for many years practiced in France, and has been there secured by Letters Patent under the name of "La Methode Jauffret," and we do hereby declare that the following is a full and exact description thereof.

In the method of Mr. Jauffret, a pit or reservoir is prepared of sufficient size to contain the quantity of prepared lye which may be required by the nature of the establishment. This reservoir or vat is intended to be a receptacle of water saturated with decomposed animal and vegetable matters, and is further to receive the ingredients hereinafter named; such water is to be found on nearly every farm, and it may be augmented by the drainings of stables, by dish water, suds, and other substances of a like nature.

Mr. Jauffret, however, finally prepares his lye, by which the fermentation of the articles to be converted into manure is to be promoted, in the following manner, under various modifications.

For the conversion of from one to two thousand pounds of vegetable matter into manure, he takes about

200 lbs. of night soil.
200 " " calcined plaster, in powder,
50 " " wood soot,
20 " " wood ashes, unleached,
60 " " quick lime,
1 " " common salt,
1 " " rough saltpetre,
150 " " lye or ferment drainings from a Jauffret manure heap.

These ingredients are in many cases to be replaced by others; this lye to be prepared 10 or 15 days before use. The quantity of materials above named, for the conversion of from 1 to 2,000 lbs. of straw or other dry vegetable stalks, will answer for about double that quantity of green vegetable matter.

In using this lye, the plan of Mr. Jauffret is to steep in it the vegetable fibres, which are to be acted upon by throwing them into the vat or reservoir containing it, and removing it thence at great labor so as to form a high heap in the vicinity of the vat, in which the drainings are allowed to run.

We have thus given a brief outline of the method of Mr. Jauffret, the same appearing necessary to the understanding of our improvements, which consist in our omitting altogether the excessive labor of steeping the materials to be acted upon in the lye, and elevating them from thence to the heap; and

also in the preparation of a lye, which is equally effective with that of Jauffret, at much less cost, and which can be used immediately on its being made, thereby saving the delay of 10 or 15 days which "La methode Jauffret" requires.

We prepare a reservoir to contain the lye as usual, and in the immediate vicinity of this, we make our stacks or heaps of vegetable matter, which is to be converted into manure.

We give to the ground, where the heap or pile is to be made, an inclination towards the vat; if the ground is a firm clay, it may be merely sloped, and have shallow trenches dug on its surface to conduct the drainings back into the vat; or it may have a flooring of timber, brick or stone, as may be preferred, which may be so trenched as to conduct the whole towards a central drain. When our platform or flooring is of clay, we cover the trenches and whole surface of it with brushwood or rails, so as to form a temporary grating that will support the weight of the heap, and thus insure a drainage, and the admission of air to the heap from below.

The materials to be converted into manure, we pile upon this prepared platform immediately as it is delivered by the carts, and this we sometimes continue to do until the heap has attained the whole height to be given to it, when by the use of a pump, buckets, or other suitable means, we raise the lye from the vat and pour it on to the heap, continuing so to do until the whole mass is saturated; we in general, however, raise the heap to a height of two, three or four feet, more or less, and then pour on a portion of lye, repeating this as the height of the pile is increased; this procedure obviates the necessity of lifting the whole of the lye to the full height of the heap.

The materials which we employ in making the lye, may be limited to the following, namely: cow, horse or hog's dung, or night soil, the urine draining from stables, and quick lime. The ingredients used to be intimately mixed with a sufficient quantity of saturated water.

Two of the kinds of animal dung we have found to answer as well as a larger number. A perfectly good lye will be made by taking one barrel each of two of the species of dung, two of the urinary drainings, one of quick lime, and about 50 barrels of saturated water which is then to be used as above explained.

What we claim as our improvement on Jauffret's method of forming manure by the rapid fermentation of vegetable fibres, is, first, the forming of the said vegetable matter into piles or heaps, without its being first immersed in the prepared lye, and the subsequently saturating the same by the pouring on the lye in the manner set forth.

Witnesses, Th. M. Abbett, J. R. Abbett. } CHARLES BAER, JOHN GOULIART. (Patented June 24, 1843.)

Feeding Hens.

There is no profit in keeping farrow hens; and hens will not lay in winter unless they are well fed. Unless particular care is taken in the common mode of feeding, the flock will sometimes fall short of food and at others be injured by a surfeit. It is well therefore to place a trough in the hen-house, made in such a form that the fowls can put their heads in, but not their dirty feet. Then keep a constant supply of grain before them; buckwheat, oats, or corn; and they will never eat to excess, nor need any to starve.

But this alone is not sufficient. Hens require a variety of food or they will not continue healthy and will not produce eggs. In summer it is interesting to notice what varieties of food they cull from the earth. The grasses and various kinds of herbs are daily cropped to make up their fare, in addition to the minerals, the gravel, &c. without which it is certain they lay no eggs.

Boiled potatoes are good for part of their food; cabbage leaves and almost any green thing of that kind, in winter will be relished; and if you have any animal food to spare let them have a little.—All these for a variety, but you will find your account in keeping some kind of grain constantly by them, that they may never go hungry.

In regard to the policy of letting the roosters run with them in winter, there may be some question. We find that many think the hens will lay more constantly without roosters than with them. It may be tried without much trouble. A warm place must be provided or you can expect no eggs in winter.—*Mass. Ploughman.*

Cows holding up their Milk.

A farmer observes that he was troubled with a cow holding up her milk, and he could devise no means to remedy the evil; when his son only 9 years old, took the management of the cow, in this respect, and succeeded well. This son was afterwards at his uncle's, who had the same trouble, and feared that he should lose his cow, as she had not given down any milk for several days; the boy said that he could milk her. He went to work performing the operation precisely as though the cow gave down her milk, though for some time she gave none; he still persevered, and after some time the milk flowed freely, and he obtained nearly two pails full.

This shows that mildness and steady perseverance is necessary in this business. Some persons become fretful if they cannot succeed in milking at once, and then abuse the cow for her obstinacy, instead of persevering, and succeeding as they might in many cases. It is doubtless most natural and easy for a cow to give down her milk, and when she holds it

up she puts herself under a restraint, and this requires a constant exertion, of which she will become tired after a while, if the milker perseveres. These are our views, and we advise those who are so unfortunate as to have a case of this kind, to try the effect of perseverance, if necessary.—*Boston Cultivator.*

The Mole.

The *Moles* are beginning to throw up the earth, and to destroy the herbage of the light soils. What an extraordinary animal is the mole! We constantly see his traces of destructiveness, but how difficult is it to track him to his hiding place. And no wonder: his excavations are galleries of many feet in length, worked out by his snout and strong fore-paws, with all the skill and expedition of a human miner; and when he is alarmed, he retreats to his citadel, and defies all enemies. The mole, as is well known to our country readers, is destroyed by a trap of peculiar construction, which is discharged by the little animal passing through it. The mole-catcher—in general a quiet old man, who passes the winter in making his traps in his chimney corner—comes forth at this season with his implements of destruction. His practised eye soon discovers the track of the mole, from the mound which he throws up to some neighboring bank, or from one mound to another. It is in this track or run that he sets his trap, a few inches below the surface of the ground. As the mole passes through this little engine of his ruin, he disturbs a peg which holds down a strong hazel rod in a bent position. The moment the peg is moved, the end of the rod which is held down flies up, and with it comes up the poor mole, dragged out of the earth which he has so ingeniously excavated, to be gibbetted without a chance of escape. The trap is very simple and effectual; but, somehow, the moles flourish in spite of their human enemies. Mole-catchers, a plodding, unscientific race, know little of their trade, which requires the most accurate study of the habits of the animal. There was a Frenchman of the name of Le Court, (he died about the year 1830,) a man of great knowledge and perseverance, who did not think it beneath him to devote his whole attention to the observation of the mole. He established a school for mole-catching; and taught many, what he had acquired by incessant perseverance, the art of tracing the mole to his hiding place in the ground, and cutting off his retreat. The skill of this man once saved a large and fertile district of France from inundation by a canal, whose banks the moles had undermined in every direction. Le Court alone saw the mischief, and could stop it. Doubts have been entertained whether moles are really so mischievous to the farmer as they are generally supposed to be. It has been said that they assist the draining of land by forming their excavations, and that they thus prevent the foot-rot in sheep.

On Winter management of Sheep.

My custom has been to provide comfortable shelter for them, where they can be well protected from storms, separating the lambs and weaker sheep from the older and stronger ones, and putting them into a yard by themselves, provided with feeding troughs, in which they are fed half a gill of corn or peas per sheep daily, and with hay once a day, but no more than they will eat up clean; and then they are fed on straw through the day. The old sheep are fed one gill of corn or peas each daily, without any hay; giving what straw they can eat. I have generally commenced feeding grain by the middle of December and continued to feed until about the first of April. I am satisfied by comparing my sheep with other flocks of about equal number in the spring, that it is not only better for the sheep than to winter on hay without grain, but much cheaper. It will be perceived the amount of grain consumed by each sheep, if fed one hundred and twenty days, would be less than half a bushel; the cost of which would be all that the farmer would feel, and in fact, all the expense there is, save the time of feeding; for straw when brought into the shape of manure by sheep, I consider worth more than in any other state, as there is no other article that mixes so fine and evenly with animal manure, to be applied to land in a long and unfermented state.

Salt should be given regularly once a week, which conduces much to the health of sheep. I seldom lose a sheep from my flock during the winter, which I attribute to good sheltering and regular feeding. If some farmers should not like to be at the trouble of feeding thrashed grain to their sheep, I would recommend feeding peas in the vine, as I have seen it practiced with good success.

It would appear that there is very little diversity of opinion in most parts of the country, with regard to sheltering sheep in winter, as they are seldom provided with any, except what they can find by shifting from one part to another of a stock pen, placed upon the most bleak and windy place on a farm, or changing their quarters from one side to another of a barn without either shed or hovel attached to it, to protect them from the peltings of a storm, as pitiless as their owner. The merciful man will be merciful unto his beasts. M. N.

New Genesee Farmer.

Sow clover seed in the spring, just before the breaking up of the frost, to make it take deeper hold of the ground.

Notices of some of the Agricultural Journals of the Day.

THE CULTIVATOR.

We have received No. I., Vol. I. of a new series of this great work, published in Albany, N. Y. by Luther Tucker, and edited by Willis Gaylord and Luther Tucker; with whom they have associated an old and tried friend of the cause, and one who has devoted much time, talent and money, as well as practical zeal, under the most trying prospects of being able thoroughly to enlist the farming community into the ranks of the agricultural improvement army—that gentleman is Sanford Howard—whom we once, for a few minutes only, had the pleasure to see in the Farmer and Gardener Office, in this city, when our paper was under the administration of Messrs. Affleck and Foster, after our temporary secession from it. We are accustomed to look up to such papers as the Cultivator and the American Farmer, with something of the same respect as youth regards, or ought to regard, the wisdom and dignity of that old age, which from a well spent life is entitled to every sentiment of esteem and reverence.

The Cultivator, being changed from a quarto to a royal octavo, is more convenient for binding; and the type, illustrations, and embellishments are all new and inviting.

It is printed, as usual, once a month, at one dollar per year.

Another work, THE FARMER'S MUSEUM, embodying the matter of the Cultivator in half the space, is issued at the same office, at 50 cents per year.

THE AMERICAN AGRICULTURIST.

This work, which has now reached the third volume, is under the able superintendence of A. B. Allen, connected with both the scientific and practical information of himself and his brothers and friends, and is hardly second to the Cultivator and its host of writers, in utility and importance. It is published at New York, in the royal octavo form, at one dollar a year. We would here recommend to those western farmers, who wish to be kept enlightened on the agriculture of the East, as well as of the Union in general, to take one or both of these papers; and may we be pardoned also in suggesting that should they wish for information in their more immediate neighborhood, or should the *eastern* farmers desire to be acquainted with western agricultural and horticultural improvements, that we intend, and trust that we have accomplished it to some extent already, that the Western Farmer and Gardener shall be made a repository of all that is interesting and valuable on those subjects here. Our paper being the organ of the Cincinnati Horticultural Society, is already, and will of course, as that society advances in age, be particularly connected with western horticultural discoveries and intelligence. Men of the East, then, reciprocate with us in pushing forward this great business over the length and breadth of our common country; and gentlemen of the Cultivator and of the Amer. Agriculturist, assist us in doing so!

THE AMERICAN FARMER.

This old father of the cause (church we had almost said) still keeps on the even tenor of his way; nothing can tempt or divert him from the glorious duties to which he has been devoted for so many years; and if the work has changed hands, like many others, from the first and longest of its conductors, to the present time, each and all have never given up the ship till it was safely entrusted to a worthy successor, down to the present incumbent. Its articles have always been noted as proceeding from the ablest writers that the country affords, and of the loftiest and most scientific bearing; and their principles, for general adoption, are continually of the most inestimable value to the pursuits of agriculturists. It is published at Baltimore at $2,50 per annum in advance, or $3 if not paid within 6 months. Perhaps some of its patrons may wish for Western agricultural or horticultural news; if so, let them send on for a good Western paper!

THE NEW ENGLAND FARMER.

The very name of this paper smacks of prosperity and thriftiness—nor does its matter fall short of its title. It has ever been one of the ablest leaders in the ranks of the forces brought forward to combat and confound the opposing hosts of ignorance and prejudice, and to establish on a firm foundation, the reign of good sense and knowledge. Long may it continue to do good, not only in the country of its birth, but circulate far and near; and if it can forward the knowledge of Western discoveries in the East, by inducing some of its subscribers to take the Western Farmer and Gardener, or some other Western publication of the kind, it will not rank lower in our estimation!

HOVEY'S MAGAZINE OF HORTICULTURE.

This excellent, and as regards this country, *unique* work, published at Boston at $3 a year, is going into its thirteenth volume, and is replete with valuable information and facts on all subjects and points connected with the science and practice of gardening; it is truly appreciated by the zealous and improving horticulturists. We would ask the subscribers to this work in the East, now that the Western Farmer and Gardener publishes all the proceedings of the Cincinnati Horticultural Society, whether they would not like to be in possession of all the Western information on this subject, and if so, to send on for our paper! E. J. H.

The Camellia Japonica.

On the Cultivation, Propagation, and general Management of the Camellia Japonica, and its varieties.

GENTLEMEN:—I am very glad that practical men have taken hold of the Western Farmer and Gardener, because I think such a work is really wanted in this part of the country. I also believe such a work ought to be supported; it is time Cincinnati had a monthly work exclusively horticultural. A city and surrounding country that supports ten public sale gardens, besides a number of private gardens where plants are sold, should have one monthly horticultural directory, at any rate. But farming and gardening ought to be separated. Pigs, poultry, and horned cattle, do not harmonize with plants and flowers; it is true, they are of the same genus, but very distinct varieties. I trust you will pay particular attention to the bringing into notice *native* plants and flowers. People need not run after exotic plants, when there are so many beautiful natives in the surrounding woods.—But to my subject.

This being the season of the year when that splendid genus of plants, the Camellia japonica, and its numerous varieties, are in flower, I will with pleasure give you a plain, practical statement of my plan of cultivating the Camellia—not very different from that of others, it is true; but as every locality has its peculiarities, and as Mr. Hoffner has the best collection of Camellias west of the mountains, I may be allowed to know something about them, and how this climate suits them, &c.

Camellias are propagated by seeds, cuttings, grafting, budding and inarching. By seeds to raise new varieties; by cuttings to raise stocks to graft, &c. the double varieties on; by budding to increase the new kinds, because every leaf will make a plant; by grafting to increase the finest; and by inarching to multiply the commonest kinds with the greatest certainty.

PROPAGATION BY SEEDS.—The seeds should be sown directly they are ripe, in a light sandy loam, mixed with a little leaf mould; one seed in a three inch pot, placed in a shady, warm, moist situation, kept moderately damp; as soon as they vegetate, they must be kept very clean, by frequently watering them over the leaves with a fine rose watering pot—use clear rain water. They may remain in the seed pots twelve months. Very few of the Camellias produce seed, except the single and semi-double ones.

PROPAGATION BY CUTTINGS.—The single red and single white are the only two worth multiplying by cuttings, and that only for stocks. The cuttings should be taken off as soon as the young wood, this year's growth, begins to turn from a light green to a light brown; cut off at the junction of the young with the old wood, the cut end squared with a sharp knife. If the shoot is more than eight inches long, it will make two cuttings. Into a six or eight inch pot put two handfuls of broken bricks the size of common garden beans; over the bricks place a layer of moss, or the fibrous roots of grass; fill the pot to the rim with sand, plunge to the rim in water, let it stand a few minutes on any uneven surface to drain; then put the cuttings in, with a small dibber, and plunge the pot gently to the rim in water—then put it in a shady corner for a few days—then cover with a bell glass. A pot six inches wide will hold ten cuttings. Keep them shaded, moderately moist and warm—they do not require much heat to root. They will take from two to six months before they are fit to pot off. When rooted, pot them into three inch pots, in the composition hereafter described. The best sand that I know of, about Cincinnati, for propagating, is in a bank near Proctor & Gamble's candle factory, Western Row. It should be exposed to the atmosphere a week before using.

BY BUDDING.—The mechanical operation of budding the Camellia is exactly the same as for any other tree, a rose, for example; it only requires more nicety in the performance. There can be no specified time for budding the Camellias; that depends on where they are kept, and the forwardness or lateness of the season—generally from June to August is the proper time. Soft worsted thread is the best material to bind the bud with. The budded plants must be kept in a frame, very little or no air given, and watered freely. In about two months they will show signs of growing, when they must be gradually exposed to the air, and treated as old plants. This method of increasing is not recommended, unless there is necessity for it.

PROPAGATING BY GRAFTING—Is performed as in grafting apple trees—what is called whip grafting. I think the best way is the half budding, half grafting plan, similar to grafting old apple trees. Cut the stock a quarter of an inch above the lowest, soundest leaf on it. Then slit the bark on the opposite side of the leaf, about an inch downwards, raise the two corners of the bark, and the sides all the way down. Prepare the scion exactly like the

apple tree scion, only with greater nicety. The scion should have at least three leaves on; push it gently down between the raised bark of the stock, bind it nicely round with soft worsted or cotton bands, cover lightly with grafting wax, place them in a close frame, kept moist and warm: in about two months they will have taken. They should be looked to every day, to remove dead leaves, to water, &c. Spring is the proper time to graft, say from February to June.

Propagating by Inarching.—This is the surest method of increasing the Camellias, less liable to failure, requires less manual dexterity in the operation, suffers very little from atmospheric changes, can be performed in any season of the year, and kept in any place; consequently inarching is the general method of increasing the double varieties of this family of plants.

The objections to this method are—it takes more wood to work with, takes longer time to get through, occupies more room, and altogether is a more bungling way, but equally good in the end. The operation is very simple. Having fixed on your stock and scion, match them to see the points where they will most conveniently meet, as near the root of the stock as possible. If the stock and scion are of different heights, erect a stage of something—such as flower pots, bricks, &c., piled on one another—or any thing, such as the genius of the operator will contrive. (Remember it is to remain from two to six months.) Having erected the stage, and tried how it answers, cut about an inch and a half of the sides of the stock and scion, and about half through, (the scion should be a little less in diameter than the stock,) fit both closely together, (see, of course, that the inner edges of the bark meet,) bind them neatly with cotton or worsted thread, cover slightly with grafting wax, and the operation is finished. Attend to watering, shading, &c. A green-house, pit, frame, or a common room, will keep them. Spring naturally is the proper time to inarch; but it will succeed any time.

General Culture. *Soil.*—The best soil for the Camellia is turfy loam and sandy peat, in the proportion of 2 to 1; but, as sandy peat cannot be had in this part of the country, we must look out for something else that will answer instead. The nearest in its nature to peat being decayed vegetable matter, we must use that as a substitute. My composition for Camellias in this country, (and I have succeeded very well,) is the following—to eight parts of turfy loam, I add four of very rotten leaves, two of propagating sand, and one of charcoal; mashed, so that the largest pieces will be about the size of hickory nuts, all mixed thoroughly together, to stand a week before being used. The best loam that I find about Cincinnati, is on the top of the hills above the city, extending from Mr. Graham's house to Mt. Adams. Only three inches of the turfy top part should be used, broken with a spade, but never sifted or screened.

Re-potting.—The Camellia does not require much pot room; we have plants a foot and a half high, with three to six flowers on, in pots four inches in diameter. There can be no definite rule for this operation; it is only practice and experience that can determine. Some varieties require larger space to grow in than others; healthy plants require more pot room than sickly ones. Camellias will not grow in sour, sodden soil; they require plenty of drainage in the bottom of the pot, that all the superfluous water may drain off. The reason that half the plants in this part of the country do not look healthy, is the want of proper drainage. In potting, place a large piece of pot or brick on the orifice in the bottom of the pot, not to fit; it should form a small dome, irregular at the sides, so that the water may pass off freely; over that put a handful of smaller pieces—for a six inch pot, one handful; for a nine inch pot, two handfuls; and so on in proportion. Over the crocks, as they are called, place a layer of turf, picked out of the composition you are potting with, the grassy side downward; then fill up with the above composition. After potting, place the plants in a shady situation for a few days. There is no exact time for repotting the Camellia; the only rule is—"*when they want it.*" My time is, after they have done flowering, and before the buds begin to start to grow. Strong, healthy plants I leave till they have done growing, and formed their flower buds; weak, sickly plants I pot before flowering, that the roots may not be disturbed after they have formed young sponglets. It is not necessary to repot large plants every year; but they should be turned out of the pots, once a year at any rate, to examine the drainage, and pick out any fish worms that may have got in.

Watering.—When in a growing state, the Camellia wants a plentiful supply of water; just after potting they do not require so much, but the moment the buds at the extremities of the branches begin to elongate, water them freely, and continue until they have finished their growth.

Every other day they should be watered over the leaves, and in hot, dry weather syringed every day — always after *sun down*. After they have done growing, water sparingly for a few days, which will cause the small points at the extremities of the branches to turn into flower buds, otherwise those points will run into branches. The quality of the water has a great deal to do with the growth of the Camellia; spring, well, or pump water, in this section of the country, passes over or through lime stone, consequently the water is more or less impregnated with lime, which is very prejudicial to plants. Therefore, we must use rain, river, or creek water; the former is the best. River water is not good to syringe with, because it leaves a sediment on the leaves that must be sponged off. When a plant has too much water, the leaves and buds turn yellow and drop off; when too little, they shrivel. Too much or too little causes the flower buds to fall off—different causes producing the same effect.

Temperature.—The Camellia being a native of China and Japan, where frost is as frequent in winter as with us, especially in the northern parts, it will bear 10° of frost with impunity, although 1° is not commendable; we have them growing in a cold pit, where for three nights running, the thermometer stood at 5° below the freezing point; of course, they will not flower so soon, nor so strong as those in the green-house, where the temperature is never less than 40° and up to 70° sometimes on clear shining days. I am of opinion that the single red, and single white, will stand the winter out of doors in this neighborhood. A temperature ranging from 35° to 50° is the most congenial to them in the winter; in the flowering and growing season it should not be below 50° at night, up to 60° in the day; from the above it follows that 33° is the minimum and 70° the maximum in which Camellias will do well with artificial heat. Therefore any degree between the above two extremes will do; of course, extremes are to be avoided. To grow the Camellia to perfection, it must have a house exclusively for itself.

Summer management.—As we cannot well change the temperature out of doors, we must take it as it comes; but still we may modify it a little. Plants will bear any solar heat, if their roots are in good condition, and well supplied with water. In artificial culture, the roots of plants are confined to a very narrow space, and a great many huddled together, and all running after moisture, consequently they dry much sooner than when running in a large body of earth; therefore we must protect them. When the Camellias are turned out of doors, (which should be done about the beginning of June, or after they have formed their buds at the end of the young wood,) they ought to be plunged up to the rim of the pot into some nonconducting material, such as sawdust, old tan, coal ashes, &c.; care must be taken that the water does not stagnate about their roots, by placing them upon some porous substance, coarse gravel, for example. In placing them out, choose some shady spot, behind a house, wall, or tree, where it is open over head, but shaded from the sun's rays from 10 o'clock A. M. to 4 P. M. If there are signs of fish worms in the ground, give it a thorough drenching with lime water, which will bring them to the surface or kill them. Fish worms in pots are as bad as a thief in a village; they should always be hunted out. Some eminent cultivators never turn their Camellias out, but shade them in the greenhouse. I like to give them the benefit of pure air, night dews, showering rain, &c.; besides, it is the only way to keep the *red spider* down. The red spider is not well known in this country, he is so small that people think that he can do no harm; that is wrong—great effects from small causes result. The red spider is as bad for plants as the yellow fever is for the inhabitants of New Orleans, and brings about much the same appearance—causes plants to turn *yellow*, and die. If the Camellia leaves do not look *sleek* and green, turn up a leaf; if you cannot see anything, borrow your *grandmother's specks*; get the focal distance to suit your vision, it's ten to one you will see a little fellow with a black head, and red jacket. Kill him; he is as bad for your Camellias as the British red coats were to the cause of Independence. In hot dry weather Camellias should be watered overhead every night—invariably after sun set. Towards the fall, when the nights lengthen and heavy rains fall, of course very little water is necessary; in warm days and dewy nights, watering over the leaves may be dispensed with. About the beginning of October, if the weather is wet, Camellias should be protected; abundance of air given all day, and if the weather is mild, all night. The pot should be examined to see if the drainage is right; if there is any worm amongst the *crocks*, remove the crocks gently so as not to disturb the root, and replace them in about the same way as they lay before; get rid of the worm at any price. If there is any green matter growing on the outside of the pots, it should be washed off, and the surface of the earth removed, about one half an inch; replace it with fresh. Two or three waterings with manure water will do the plant no harm if they are showing strong for flower. In a greenhouse where there are other plants, the Camellia should occupy the northern side in the north west end; if there is any quantity, they should be placed together; they are like the Chinese, they do not like foreigners amongst them.—Generally Camellias will commence to flower in December and continue till June, if there are a few of each variety.

Such, gentlemen is a sketch of the management of the Camellia, as I have seen practised,

and am practising, and will till I find a better one. Mr. Hoffner has a collection of upwards of 50 varieties, of which I have the management; 20 of which are splendidly in flower now, and the rest coming on; any person can see them by calling at the Garden. I shall feel great pleasure in answering any question in explaining any part of the above sketch that appears ambiguous to the tyro in Camellia growing. In conclusion, I think (from three years' experience) that this climate is as good as any I have known for growing Camellias.

Wishing you success in your laudable undertaking, I remain, gentlemen, yours obediently,

DAVID ROSS,
Gardener to J. Hoffner, Esq., Cumminsville, O.
Jan. 29th, 1844.

The following Camellias are hi ghly beautiful:

Whites.	Reds.
Old Double White,	Anemoneflora,
Alnullii alba,	Colvella rubra,
Candidissima,	Cleveana,
Compacta,	Florida,
Fimbriata,	Rubra preleno,
Harrisonii	Rossii.

Rose Color.	White Striped with Red.
Anemoneflora rosea,	Baltimoreana,
Decora,	Colvillea,
Fordii,	Donkelarii,
Formosa,	Eclipse,
Landrethii,	Rudolphii,
Reticulata *splendidissima*.	Spofforthii.

Red Striped with White.

Variegata,	Imbricaulis,
Splendens,	Pratii,
Speciosa,	Parkii.

Ismene Amancaes.

Nat. Ord. Amaryllideae, *Class* Hexandria Monogynia.

This beautiful plant is a native of Amancaes, near Lima, in Peru, where it is found in all its splendor, a fine deep rich yellow flower. It sends forth a scape about 36 inches, with several flowers 6 in. long and about 4 in. across, and its delightful fragrance makes it a very desirable plant in all collections of Liliaceas. The bulb is not large, and to grow it in perfection requires a sandy loam and a medium sized pot. Like all the Ismenes and its tribe will require a season of rest. This plant is as much celebrated in its native country, on the 24th June, (when in full bloom,) by the natives of that country, as the Hawthorn is in England on the 1st of May; perhaps more so, for the churches in Peru are decorated with it at that season. It was named Ismene after the daughter of *Œdipus*. It is scarce in this country, and cultivated in England to great perfection, by Messrs. Rollinson's, Toutting Nursery For a fine description of the flower, see a book entitled, "A Visit to the South Seas," by C. J. Stuart, M. A. w.

The Strawberry.—*Fragària.*

On a sandy hill at Nutplains, there are about six strawberry plants, and they bear some four strawberries; these are the true Fragaria, as the botanists please to call it. They are small, sweet, and deliciously high flavored—Hautbois and Hoveys are unpalateable, as compared with them. Next in flavor come the small field strawberries, whose whereabouts are known to school boys. It's not often that more than a pint can be gathered in an acre field—yet they are worth the trouble. The whole pleasure though, is not in the eating of them: great is the satisfaction if we find one as large as a Hudson! Who has not known the whole field of hunters to concentrate about it? It's like angling: a small trout is better than a large perch.

But it is not for nothing that this high flavor is had. This same variety may be greatly increased in size and productiveness by cultivation. It is, however, lessened in quality. It is not worth while, therefore, to quarrel with the Hudson Bay and Old Pine; a tame sheep is better than a wild chamois—one can be had, the other cannot.

It is so rare that a person is met with who does not love strawberries, and who cannot eat them with impunity, that it may be said that they are universally healthful. Mr. Loudon says, "The fruit is fragrant (whence fragaria,) delicious, and universally esteemed; it consists almost entirely of matter soluble in the stomach—and neither there, nor when laid in heaps and left to rot, does it undergo the acetous fermentation. (?) Hence it is very nourishing, and may be safely eaten by gouty and rheumatic persons."

Abercrombie says, "In addition to its grateful flavor, the sub-acid juice has a cooling quality peculiarly acceptable in summer. Eaten either alone or with sugar and cream, there are few constitutions with which strawberries, even when taken in large quantities, are found to disagree. Further, they have properties which render them, in most

conditions of the animal frame, positively salutary; and physicians concur in placing them in their small catalogues of pleasant remedies. They dissolve the tartareous incrustations of the teeth; they promote perspiration; persons affected with the gout have found relief from using them very largely; so have patients in cases of the stone; and Hoffman states, that he has known consumptive people cured by them"

There! — what other inducements does a man need? His teeth will have tartareous incrustations — he'll have the gout — the stone — the consumption (of strawberries?) — and he won't perspire—if he has no strawberry bed!

The fruit has received its name from the ancient practice of laying straw between the rows, which keeps the ground moist and the fruit clean. It is not properly a berry, but (in botanical language) a fleshy receptacle studded with seeds. English writers divide them into some seven classes — the SCARLET, BLACK, PINE, CHILI, HAUTBOIS, GREEN, and ALPINE or WOOD. The varieties most in cultivation in this country, are the Old Scarlet, the Hudson Bay, the Keen's Seedling, the Methven Scarlet, the Prolific Hautbois, the Old Pine or Carolina, and Hovey's Seedling (new.) The following descriptions of them may be of service.

The OLD SCARLET—*Early Scarlet.*—Middle sized, globular, of an uniform light scarlet; seeds deeply embedded; flesh pale scarlet, firm, and high flavored; ripens among the very earliest of the strawberry tribe, and is highly deserving of cultivation (although it is rather a shy bearer,) &c.—*Loudon.*

The HUDSON BAY SCARLET.—Fruit large, with a neck; irregularly shaped, approaching ovate; of a rich, dark, shining red; seeds unequal in size, deeply embedded, with ridged intervals; flesh pale scarlet; form hollow, with a core; of a moderate flavor, with much acidity. This should remain ungathered till it assumes a dark color, and is fully ripe; otherwise, the acid which it contains predominates and injures the flavor of the fruit.—*Lindley.*

The KEEN'S SEEDLING.—Fruit very large; round or ovate, and many of the largest assuming a cockscomb shape; dark purplish scarlet, especially next the sun; flesh scarlet, firm, with a rich agreeable flavor. A great bearer, ripening early in the season.—*Loudon.*

The METHVEN SCARLET.—Not much sought for now.

The PROLIFIC HAUTBOIS. — Fruit large; conical, shorter and more obtuse than the Black Hautbois; the color a dark, dingy purple when ripe; seeds slightly embedded; flesh solid, greenish, and high flavored, (musky;) a very abundant bearer; and it usually produces a partial second crop, blossoming in August and September, and ripening in October. The autumnal berries are much larger than the summer ones, and nevertheless high flavored. This is by far the best of the Hautbois strawberries; the flowers the largest of the class yet known, with numerous staminæ.—*Lindley.*

The OLD PINE, or CAROLINA.—Fruit large; slightly hairy, with a neck; of a uniform bright scarlet; ovate-conical, occasionally compressed, and, when luxuriant, the early fruits are coxcomb-shaped; seeds slightly embedded; flesh pale scarlet, rich and juicy, with a very grateful flavor.—*Lindley. Mr. Loudon* says, it is heavier than any other, richer than the Keen's, not so good a bearer, and has very dark leaves.

HOVEY'S SEEDLING.—Raised by Mr. Hovey, near Boston. I have no written description of it; it is, however, very large, high flavored, a good bearer, and a general favorite.

It must be recollected, that the above descriptions were written in England. The Hudson Bay, it is likely, is a better fruit here than there. The Hautbois (probably the Prolific) is cultivated in this immediate vicinity under the name of the La Grange. The ground for strawberry beds should be dug deep and broken well, and have a good manuring with half-rotted dung. The beds may be planted in the fall or

spring; if in the fall, it should be done by the first of September, that the plants may get well rooted; they will otherwise be thrown out by the frost. After the bearing season, the straw or grass put on to keep the fruit from the dirt, should be removed, and the ground between the rows kept clean with the hoe till November; the runners and decaying leaves should then be removed, and a dressing of two or three inches of half-rotted manure be spread over them. This protects the plants from severe weather, and enriches the bed: some recommend rotted tan. In the spring, it should be forked in lightly and laid with straw. Most persons prefer to make their beds in the spring; it is the safest plan, as very little fruit comes the first year in any case. Unless the plants for new beds are obtained from a nursery, where the fruitful and sterile (or male and female) plants are kept separated, new plantations should be made when they are in flower. Care may be taken then to select the females, or those which have the pistillum perfect, with or without the stamens. It is not worth while to go into the discussion as to why these two distinctions exist—Mr. Longworth and Mr. Hovey can fight it out! But the sterile plants, not bearing fruit, grow with vigor, throw out many runners, and will, if planted in the bed, soon overgrow and *run out* the others. *If necessary*, to the growth of this fleshy receptacle, they should be kept by themselves; and before flowering, a square of them may be cut out with a spade and planted in the alleys, (which should be three feet wide,) of the fertile plants at intervals of six or eight feet; and cut up with a hoe so soon as the plants are out of flower, or they will soon extend themselves into the bed.

The varieties here spoken of should be planted in rows fifteen inches distant, and from twelve to fiteen inches apart in the row. The Old Scarlet, the Hudson Bay, and the Hautbois are the least vigorous. Strawberry beds require to be remade every three years, to insure good crops. A man should therefore divide his ground into three parts, one of which he plants every year; he will in this way always have one bed (the second year) in full bearing, and one in moderate bearing. The runners should be cut off the first year, as it strengthens the stock. Mr. Kenrick states that it is the practice in his neighborhood. to plant the rows two feet apart, and let the runners root; they then, in the fall, dig in the row which has borne fruit, and leave the new plants for the next season, and so continue the beds fresh and vigorous. This plan commends itself to me.—It is really very little trouble to take care of a plat of this delicious fruit; and in almost evry small garden, in town and country, a spot may be spared for it.

They should be picked with the stems and calyx—particularly if they are to be taken any distance. C. W. E.

Melons.

Among the fruits of this kind, there is probably no class which is so universally a favorite as this. It is easily cultivated, and is always sure to bear something; but a little care will amply repay the cultivator. The two difficulties in the way of success are these—to protect the plants from the attacks of insects—and drought. The striped rose bug (as it is commonly called) attacks the plants of the melon as soon they show their first pair of leaves; they are usually tender, and if cut off at once, either kill or very much weaken the plant. Sprinkling with ashes, lime or soot, has been much recommended; but, when the bugs are numerous, they cannot (or rather, I could not do it) be kept off in this way.

Since last summer, I have had some very fine seed sent me, and with it the assurance, that sprinkling with sulphur is effectual against the striped bug—and a little camphor gum near the plants will keep off the pumpkin bug, which appears later, and sucks the juices from the vines. These two things, I certainly think worthy of trial. But the most effectual preventive is a small

box, with a pane of glass (the larger the better) for its top, which can be pressed down over the hill; this will bring the seed up quick, and be not only a protection against the bug, but will keep off cold winds and frosts, if there should be any. But it must be taken off a part of every day, so that the plants may have air, and not be drawn up too weak. After the third pair of leaves, they get so much advanced that the bug cannot well destroy them, and then the dusting with lime or sulphur will be beneficial.

It is an excellent plan, about the middle of March, to plant seeds of melons in 4 in. pots, which can be set in a hot bed, such as spoken of on the next page. They get well started, and may be hardened gradually, so as to be turned out, with the earth unbroken, into the hills where they are to grow about the 10th of May. When pots are not convenient, pieces of turf, about six inches thick and a foot square, laid into the hot bed the grass side down, will answer as well. Either of these methods will insure melons a month earlier than the usual way.

The best protection against drought, is to prepare the ground by manuring well with cow manure, and ploughing deep—twice before making the hills. The manure for melons should be old and light. The practice in some sections, where they raise melons for market, is to make a hole for each hill, about eighteen inches square, and the same depth, after the ground is well prepared; this they fill in with rotten turfs, light manure, and rubbish, well mixed together with the earth. Into this the roots of the melons run, and do not easily feel the effects of dry weather. The best melon bed that I have ever seen, was made by turning over in the spring a piece of turf ground, which was light and in good heart.

Four feet between the hills is little enough for musk melons, and six for water melons. They want hoeing for the first three or four weeks, often, and in the morning when the dew is on; after that, the surface should be kept clean and loose, so as to receive the small showers. A shoving hoe is the best for this purpose, as it does not disturb the vines. Every man should be satisfied with one variety of each kind, and care should be taken to keep the seed pure, by planting them at as great a distance from each other as possible. They will mix, too, with cucumbers, pumpkins, and so on.

Melon seeds will retain their vitality for ten years and more, and are more productive than when fresh, as they do not run so much to vines; it is therefore advisable, for a man who has a good kind of melons, to save as much of the seed the first year as he can, and plant from that. The best varieties of the water melon are the Black Spanish and Imperial; of the musk, the Nutmeg, when it can be gotten good, is the best—at least, I like it best.

C. W. E.

Shrubs.

We have been requested by a correspondent to furnish a description of a few of the most desirable shrubs. There are many, such as the Syringa, Snow Berry, and so on, which are too well known to need mention here. We will give a list of vines and annuals in our next.

Laburnum. *Cytissus Laburnum*, or *Golden Chain.*—An elegant small tree. The leaves are pinnate; the blossoms are produced profusely, in long, pendant clusters, or racemes, near a foot in length, of a bright yellow color, and splendid. One of the most beautiful of all trees when in bloom, and one of the greatest ornaments of the garden. In France there is a new, white blossomed variety.

Double Flowering Cherry.—The growth of this tree is very much like the White Oxheart. It makes a handsome head, and in the spring is a perfect mass of double white blossoms. At that time it is one of the most ornamental trees that I know of.

Ring Willow.—A very curious and

singular tree; the leaves are curled in the form of a ring or hoop.

Venetian Sumac. *Rhus Cotinus, Smoke* or *Fringe Tree.*—A beautiful shrub, rising from six to twenty feet, with a round head; the leaves are round, and have a pleasant fragrance. The flowers are very striking and beautiful; they appear in June in large tufts of a purple color. In September and October they change, and appear like masses of brown, silky furze.

Calycanthus. *Sweet Scented Shrub.*—A hardy shrub, growing six or eight feet in height. This is not remarkable for the beauty of its flowers, which are very dark purple; but for their fragrance, which is very spicy and agreeable—as is the wood.

Tartarian, or Tree Honeysuckle. *Red and White.*—They grow from six to ten feet high, and early in April are covered with a profusion of small, fragrant flowers. They make a fine round head, and the foliage is rich.

Halesia, *tetraptera. Silver Bell Tree.*—The blossoms are pendant, of a pure white, bell-formed, and beautiful.

Persian Lilac. *White and Purple.*—Grows from five to seven feet in height. The leaves are pointed, and smaller than the common lilac. The flowers smaller, more delicate, and agreeable.

Spirea. *Several varieties.*—These differ in height and color, but are almost all beautiful and desirable.

Double Flowering Almond.—This shrub is pretty well known, and is one of the most beautiful of those which flower early in the spring.

Magnolia Glauca.—This does not grow so large, at least in this climate, as the other magnolias. It has large oblong leaves, and whitish purple flowers, which are very fragrant. It is perfectly hardy.

Althea. *Different varieties.*—A shrub which is generally liked.

Cornelian Cherry.—It grows from six to fifteen feet in height, has a small yellow flower in April succeeded by the fruit, which is the most ornamental.

Shepherdia, or Buffalo Berry.—This shrub is diecious, having the male and female flowers upon different plants. They flower early in the spring, and are covered in the fall with a profusion of red berries. C. W. E.

To Prepare Hot-beds.

The situation should be on the southern side of a board fence, or building. Take out the earth to the depth of a foot, a foot wider than the frame, and if in clay where the water is likely to stand, cut a drain from it.—Then with two loads of hot unrotted horse manure, mixed when it can be done with leaves, corn husks, or any such substances as ferment more slowly, it may be filled in, beating it a little with the back of the fork, but never treading it, as it otherwise will settle unequally. Put on the frame and the glass for a day or two, covering them up with some mat or cloth at night, to start the fermentation. Then put on about six inches of good fine earth, and after letting this stand a day or two, till the heat begins to rise, sow the seeds in shallow drills—or broad cast. To those who have never seen a hot-bed prepared, it will not be amiss to say, that the frame is the four sides of a box, of a foot in height on the lower side, and a foot and three inches on the upper, upon which the glazed sash rests at a slight inclination, to carry off the water; the sashes may be of any size, but the most convenient is five feet by four.

After management. The ground, until the seeds have started, requires to be kept well moistened, and the frames mostly closed, but if the heat be too great, the seeds may rot; from 50 to 60 degrees of farenheit will be the heat at which the bed should range. After they are up, then open the sashes in every pleasant and mild day; at first only a few inches at a time, to let off the moisture which might otherwise rot the plants, and to make them grow strong and healthy; if kept under the glass with great heat and moisture, they grow weak and spindling; they will often require thinning as the spring advances; give more and more air on fine days, until the sashes can be taken off entirely during the day, as the object is to get the plants perfectly accustomed to the state of the atmosphere, which exists about the first of May, at which time it is usual to transplant them into the open ground. The nearer the glass can be put to the surface of the ground, the better the plants will grow, and as they increase in size, the frame may be raised so that they will not grow against the glass. If the weather should be cold after the seeds are put in, fresh and hot manure should be put around the outside of the frame, lining it, as it is called, as high as the top of the frame, if necessary; mats and boards too will be ne-

cessary to cover the glasses at night, and sometimes during the day, when the cold is intense. From the middle of February, to the middle of March, and first of April, is the usual time for preparing hot-beds for plants to go into the open ground. Many frames are prepared for permaneut growth, for cucumbers, and melons, having only one hill in them, in which the fruit ripens. These and other plants, which do not bear transplanting well, may be started in pots, (or upon square pieces of turf,) and turned out with the hill without desturbing the roots.

Antiquity of Beer.

The general drinks of the Anglo-Saxons were ale and mead: wine was a luxury for the great. In the Saxon Dialogues preserved in the Cotton Library in the British Museum, a boy, who is questioned upon his habits and the uses of things, says, in answer to the inquiry what he drank—"Ale if I have it, or water if I have it not." He adds, that wine is the drink "of the elders and the wise." Ale was sold to the people, as at this day, in houses of entertainment; "for a priest was forbidden by a law to eat or drink at *ceapealethetum*, literally, places where ale was sold." After the Norman Conquest, wine became more commonly used; and the vine was extensively cultivated in England. The people, however, held to the beverage of their forefathers with great pertinacity; and neither the juice of the grape nor of the apple were ever general favorites. Of a favorite wassail or drinking-song of the fifteenth century, the burden was—

"Bring us home good ale."

"The old ale knights of England" as Camden calls the sturdy yeomen of this period, knew not, however, the ale to which hops in the next century gave both flavor and preservation. Hops appear to have been used in the breweries of the Netherlands in the beginning of the fourteenth century. In England they were not used in the composition of beer till nearly two centuries afterwards. It has been affirmed that the planting of hops was forbidden in the reign of Henry VI.; and it is certain that Henry VIII. forbade brewers to put hops and sulphur into ale. In the fifth year of Edward VI., the royal and national taste appears to have changed; for privileges were then granted to hop-grounds. Tusser, in his 'Five Hundred Points of good Husbandry,' printed in 1557, thus sings the praises of this plant:—

"The hop for his profit I thus do exalt,
It strengtheneth drink and it flavoreth malt;
And being well-brewed long kept it will last,
And drawing abide, if ye draw not too fast."

In the reign of James I. the plant was not sufficiently cultivated in England for the consumption; as there is a statute of 1608 against the importation of spoiled hops. In 1830 there were 46,727 acres occupied in the cultivation of hops in Great Britain.

Of barley, there are now above thirty million bushels annually converted into malt in Great Britain; and more than eight million barrels of beer, of which four-fifths are strong beer, are brewed yearly. This is a consumption, by the great body of the people, of a favorite beverage, which indicates a distribution of the national wealth, satisfactory by comparison with the general poverty of less advanced periods of civilization in our own country, and with that of less industrious nations in our own day.—*Vegetable Substances used for Food.*

Seeds.

The Italian hemp, flax, and wheat distributed at the last meeting of the Horticultural Society, are probably of the same varieties as those grown here. The Chia, received from Vera Cruz, is not described in Loudon's Encyclopædia of Plants under that name. It is probably the Spanish name, and its real one cannot be known till it comes into flower.

Substitute for Glass in Hot-beds and Green-houses,

We find in Hovey's Magazine of Horticulture, an extract from a German publication, describing a substitute for glass in hot-beds, and which we think will be of service in many places. It is as follows: Take fine white cotton cloth and cover the frames. To render this more transparent, and enable it to resist moisture, it is covered with a preparation, the ingredients of which are 4 oz. of dry pulverised white cheese, 2 oz. of white slaked lime, and 4 oz. of boiled linseed oil. These ingredients having been mixed with each other, 4 oz. of the whites of eggs and as much of the yolks are added, and the mixture is then made liquid by beating. The oil combines easily with the other ingredients, and the varnish remains pliable and quite transparent.

It is also remarked that the expenses of a foreign bed arranged in this manner is inconsiderable, and it yields at the same time many other advantages. It does not need the anxious care or attention required by the ordinary ones covered with glazed frames. During the strongest rays of the mid-day sun, they do not require any particular covering or shade; the atmosphere within has nearly equable temperature almost the whole day, and requires only to be changed from time to time according to circumstances.

Seeds.—Put seeds in the ground, only deep enough to have moisture—small seeds are often sowed too deep.

Tea,

The history of commerce does not, perhaps, present a parallel to the circumstances which have attended the introduction of tea into Great Britain. This leaf was first imported into Europe by the Dutch East-India Company, in the early part of the seventeenth century; but it was not until the year 1666 that a small quantity was brought over from Holland to this country by the Lords Arlington and Ossory: and yet, from a period earlier than any to which the memories of any of the existing generation can reach, tea has been one of the principal necessaries of life among all classes of the community. To provide a sufficient supply of this aliment, many thousand tons of the finest mercantile navy in the world are annually employed in trading with a people by whom all dealings with foreigners are merely tolerated; and from this recently-acquired taste, a very large and easily-collected revenue is obtained by the state.

The tea-plant is a native of China or Japan, and probably of both. It has been used among the natives of the former country from time immemorial. It is only in a particular tract of the Chinese empire that the plant is cultivated; and this tract, which is situated on the eastern side, between the 30th and 33rd degrees of north latitude, is distinguished by the natives as "the tea country." The more northern part of China would be too cold; and farther south the heat would be too great. There are, however, a few small plantations to be seen near to Canton.

The Chinese give to the plant the name of *tcha* or *tha*. It is propagated by them from seeds, which are deposited in rows four or five feet asunder; and so uncertain is their vegetation, even in their native climate, that it is found necessary to sow as many as seven or eight seeds in every hole. The ground between each row is always kept free from weeds, and the plants are not allowed to attain a higher growth than admits of the leaves being conveniently gathered. The first crop of leaves is not collected until the third year after sowing; and when the trees are six or seven years old, the produce becomes so inferior that they are removed to make room for a fresh succession.

The flowers of the tea tree are white, and somewhat resemble the white rose of our hedges: these flowers are succeeded by soft green berries or pods, containing each from one to three white seeds. The plant will grow in either low or elevated situations, but always thrives best and furnishes leaves of the finest quality when produced in light stony ground.

The leaves are gathered from one to four times during the year, according to the age of the trees. Most commonly there are three periods of gathering: the first commences about the middle of April; the second at Midsummer; and the last is accomplished during August and September. The leaves that are earliest gathered are of the most delicate color and most aromatic flavor, with the least portion of either fibre or bitterness. Leaves of the second gathering are of a dull green color, and have less valuable qualities than the former; while those which are last collected are of a dark green, and possess an inferior value. The quality is farther influenced by the age of the wood on which the leaves are borne, and by the degree of exposure to which they have been accustomed; leaves from young wood, and those most exposed, being always the best.

The leaves, as soon as gathered, are put into wide shallow baskets, and placed in the air or wind, or sunshine, during some hours. They are then placed on a flat cast-iron pan, over a stove heated with charcoal, from a half to three quarters of a pound of leaves being operated on at one time. These leaves are stirred quickly about with a kind of brush, and are then as quickly swept off the pan into baskets. The next process is that of rolling, which is affected by carefully rubbing them between men's hands; after which they are again put, in larger quantities, on the pan, and subjected anew to heat, but at this time to a lower degree than at first, and just sufficient to dry them effectu-

ally without risk of scorching. This effected, the tea is placed on a table and carefully picked over, every unsightly or imperfectly dried leaf that is detected being removed from the rest, in order that the sample may present a more even and a better appearance when offered for sale.

The names by which some of the principal sorts of tea are known in China, are taken from the places in which they are produced, while others are distinguished according to the periods of their gathering, the manner employed in curing, or other intrinsic circumstances. It is a commonly received opinion, that the distinctive color of green tea is imparted to it by sheets of copper, upon which it is dried. For this belief there is not, however, the smallest foundation in fact, since copper is never used for the purpose. Repeated experiments have been made to discover, by an unerring test, whether the leaves of green tea contain any impregnation of copper, but in no case has any trace of this metal been detected.

The Chinese do not use their tea until it is about a year old, considering that it is too actively narcotic when new. Tea is yet older when it is brought into consumption in England, as, in addition to the length of time occupied in its collection and transport to this country, the East-India Company are obliged by their charter to have always a supply sufficient for one year's consumption in their London warehouses; and this regulation which enhances the price to the consumer, is said to have been made by way of guarding in some measure against the inconveniences that would attend any interruption to a trade entirely dependant upon the caprice of an arbitrary government.

The people of China partake of tea at all their meals, and frequently at other times of the day. They drink the infusion prepared in the same manner as we employ it, but they do not mix with it either sugar or milk. The working classes in that country are obliged to content themselves with a very weak infusion. Mr. Anderson, in his Narrative of Lord Macartney's Embassy, relates that the natives in attendance never failed to beg the tea-leaves remaining after the Europeans had breakfasted, and with these, after submitting them again to boiling water, they made a beverage, which they acknowledged was better than any they could ordinarily obtain. —*Abridged from 'Vegetable Substances used for Food.'*

On the Cultivation of Heliotrope,—*Heliotropinm peruvianum.*

BY F. F. ASHFORD.

Heliotropium peruvanium, or Peruvian Turnsole, is an ornamental trailer of Peru, whence it was introduced in the year 1757. The generical name was given by Linnæus, from *Helios*, the sun, and *trope*, turning: in allusion to the flowers being always turned toward the sun. Both Pliny and Dioscorides, assert the same reasons as its Swedish author. It belongs to Pentandria Monogynia. Nat. ord. Borragineæ.

This production of the Peruvian clime, is well worthy of cultivation; its delightful fragrance, and (by the following management) long continuance in flower, will repay any occasional care or extra attention bestowed upon the plants. I have very often seen them grown and treated in a similar manner to greenhouse plants, but when treated in this manner, I always notice leafless, sickly-looking plants. Upon close application to the culture of the Heliotrope, in common with others, I find the following method to answer best, and produce as fine flowering plants as any I ever saw. Such being the case, I humbly present the particulars of the same for your numerous correspondents and readers.

Propagation.—Cuttings must be procured about the latter end of February or beginning of March, planted in pots of rich garden soil, and plunged in a working cucumber or melon frame. When the sun is powerful, that part of the light where the pots are under, must be covered with something to shield them from the overpowering heat of the solar rays. Water must be given when required, and all mouldiness, decayed leaves, &c. should be removed as they appear: for if suffered to remain, they will probably injure the whole. In two or three weeks, the cuttings will be sufficiently struck for potting: but, previously to so doing, remove them to an airy part of the stove for a few days, to harden. If a succession of flowering plants for the autumn and winter months are required, more cuttings may be put in during May and June. If any plants are wanted for turning out into the flower garden in summer, cuttings must be struck in September for that purpose.

Cultivation for Flowering in Pots.—Provide for a good compost equal quantities of maiden loam, rotten horse-dung, and sandy peat; a little leaf mould might also be added. The whole should be well chopped and incorporated together, after having been ameliorated by the frost and atmosphere of the preceding winter, but should not be sifted. When the cuttings have been in the stove for a few days, pot them off into forty-eight-sized pots, using the above compost, and allowing as much soil to adhere to the roots as possible. Pinch off the extremities of each shoot, to cause the plants to grow bushy; and after giving them a suitable watering, place them in a shady part of the stove till they have taken root and begun to grow, when they should be removed to a more exposed situation in a house of the temperature of from 60° to 70° Fahrenheit. Due attention must be paid to repotting them as often as they appear to mat around the outside of the balls, or the plants will soon

assume a sickly hue, instead of being clothed with fine green foliage. These plants are very subject to the attacks of that destructive inmate of the hot-house—that pest to gardeners—the green fly, (*aphis.*) These should not be permitted to remain, but be eradicated as soon as perceived, by syringing them every morning with pure water. If the plants are removed, when in bloom, to the green house or conservatory, they will continue in flower much longer than when remaining in heat. When they have done flowering set them in a cool part of the green house until the following February, when they should be cut down, their balls reduced, themselves repotted in the above soil, and plunged in a hot-bed, to produce healthy young shoots for propagation; after which, the old stools may be either turned out into flower borders, or thrown away, as young plants raised every year are far more preferable for the flowering in pots.

Cultivation for Flower Borders.—After cuttings are struck, let them be potted off in the same sized pots and sort of soil as above noticed, and wintered in the green house or in a house. In the following March, put them into pots a size larger, to cause them to produce fresh shoots and roots. Towards the middle of April, begin to expose them gradually to the open air; so that about the end of May, if the weather prove mild, they may be able to bear being planted out in beds or baskets, composed of good mellow, rich soil. Should cold nights happen after they have been turned out, as is sometimes the case, they must be defended by means of hoops and mats, or canvass; thus protected, they will grow and flower freely, till the chilly nights of autumn put a check to their vigor: they must then be taken up with their balls entire, and potted in suitable sized pots. If placed in the stove and shaded for a few days, they will continue to flower till Christmas, when a few cuttings may be taken off for early propagation, and the old roots thrown away.

I have thus endeavored, in as short a space as possible, to pen down my process; and I do not hesitate to say, that it will, after a fair trial, satisfy every grower of this native of the Peruvian shores.—*Flor. Cab.*

Work for February,

To the Farmer and Gardener, this month is important as a month of preparation. He sees that all ploughs and tools of every description are repaired, and put in good order for use: gets ready, bags, baskets, brooms, labels, and the like, for the coming season.

Prepare above all things a good quantity of manure; there is no danger of getting too much; wood and coal ashes are both valuable on clayey soils; so are the washings in the bottoms; all this swampy muck after being exposed to the frost, makes one of the most desirable manures.

In the Garden, prepare hot-beds; early in the month for radishes, lettuces, melons, cucumbers &c. which are to come to maturity under glass; late in the month, for lettuce and cabbage plants, which are to be transplanted into the open ground:—give air in every mild day; recollect that the object is not to have them run up and grow fast, but to become hardy and strong—protect the beds against frost by covering with mats or straw, and boards.

In the flower department, but little can be done; if the weather should be mild, so as to start bulbs, peonies, &c. above the ground, a little straw or other litter should be thrown over them.

In the fruit department.—Cut scions this month if you want to graft; get them, when you can, from bearing trees. The nursery—you may graft in the cellar, upon roots of young seedling stocks; one root will often cut into sufficient for two or three stocks; bury them in sand until wanted for planting out. Select all fruit and other trees, which you wish to plant in the spring, and have them sent to you early in the spring, so as to get them well settled in their places, and well started before any hot dry weather comes on—recollect that the best trees are the cheapest; good apples will sell for three times as much as common ones, and the difference in the first cost will be paid in the crop of the first year. Trees that bear poor fruit are a loss rather than a gain. Your fruit will be decaying this month, and should be looked over, and cleansed from rot and dampness. See also to vegetables; also to all dahlia, and other tuberous roots; see that the frost does not come to tender gladiolus, and other half hardy bulbs.

Pruning had better be delayed till the beginning of March, when the sap begins to circulate:—the severe weather which we are likely to have in this month, deadens the wound; it heals badly, and is apt to leave a spur, or piece of dead bark, which may decay and destroy the tree.

Get together such seeds as you are likely to want, but be careful to get such as are fresh, and of last years growth, except melons, cucumbers, pumpkins, &c.

In the green house, give air in fine days, and be careful not to overwater. When the plants are to be syringed, do it on a fine morning, and keep the house closed for an hour afterward. Clean off all dead leaves, and kill the lice with tobacco smoke, or whale-oil, soap suds.

The most valuable part of every man's education is that which he receives from himself, especially when the active energy of his character makes ample amends for the want of a more finished course of study.

	Names.	Leaves.	Flowers.	Flesh.	Color.	Size.	Quality.	Season.	Remarks.
7	Hardwick's Seedling.								
0	Hoy's New Seedling .	R	S	M	p. g. r.	2	1	e. Aug. b. Sep.	Closely resembles the Elruge.
0	Italian . . .	R	S	C	g. d. r.	1	2	e. Aug.	
	Brugnon.								
	Ickworth.								
8	Imperatrice . .	R	S	M	d. r.	1	1	b. Sep.	
9	Jaune Lisse . .	R	L	M	y.	3	2	Oct.	Flesh yellow.
	Lisse Jaune.								
	Jaune Lisse Tardive.								
	Roussanne.								
	Roussane Tardive.								
	Mofrin.								
	Manfreine.								
	Late French . .	R	S						
0	Lyndoch . . .	R	S	M	p. g. r.	1	2	b. Sep.	
	Lucombe's Black, see *Early Newington.*								
	Lucombe's Seedling, see *Early Newington.*								
	Mofrin, see *Jaune Lisse.*								
	Murrey . . .	R	S	M	p. g. d. r.	2	1	e. Aug.	
	Murry.								
	Black Murry.								
	Murrey, see *Tawny.*								
	Large Melting . .	R	S						
	Late Green, see *Peterborough.*								
	Manfreine, see *Jaune Lisse.*								
10	Newington . .	S	L	C	d. r.	1	1	b. m. Sep.	Good bearer; much esteemed by some when beginning to shrivel.
	Scarlet Newington.								
	Old Newington.								
	Smith's Newington.								
	French Newington.								
	Brugnon de Newington d'Angleterre.								
	Rough Roman.								
	Red Roman, (of some.)								
	[Several others.]								
11	Newington Early .	S	L	C	d. r.	1	1	b. Sep.	Earlier, darker, and larger than the Newington, and preferable to it in point of flavor.
	Early Black Newington.								
	Black.								
	Early Black.								
	New Early Newington.								
	New Dark Newington.								
	Lucombe's Seedling.								
	Lucombe's Black.								
	Newington Tawny .	S	L	C	y. b. r.	1	1	b. m. Sep.	
0	Newington, West Dean	S	L	C	d. r.	1	2	b. Sep.	
	North's Large, see *Newington.*								
	Ord's New . .	R	S	M					
	Oatland's, see *Elruge.*								
	Orange, see *Golden.*								
12	Peterborough . .	R	S	M	g.	2	2	b. Oct.	The latest sort.
	Late Green.								
	Vermash.								
	Pholia . . .	R	S						
13	Pitmaston Orange .	G	L	M	o. d. r.	1	1	e. Aug. b. Sep.	Hardy, and a good bearer; the best flavored yellow fleshed nectarine.
	Williams's Orange.								
	Williams's Seedling.								
	Please's Seedling .	R	L						
14	Roman . . .	R	L	C	g. b. r.	1	1	b. m. Sept.	The Elruge, Violette Hâtive, & Newington are frequently obtained under the name of Roman.
	Red Roman.								
	Old Roman.								
	Brugnon Musqué.								
	Brugnou Violette Musquée.								

	Names.	Leaves.	Flowers.	Flesh.	Color.	Size.	Quality.	Season.	Remarks.
	Roman, Red, (of some,) see *Newington.*								
	Roman, Rough, see *Newington.*								
	Round, see *ib.*								
	Roussanne, see *Jaune Lisse.*								
	Rousanne Tardive, see *ib.*								
	Royal Buckfast . .	S	L	C	d. r.	1		b. m. Sept.	Has much resemblance to a Newington.
	Sands's Seedling .	S	L						
	Scarlet, Large, see *Violette Hâtive.*								
	Superb, New.								
0	Tawny . . . . Late Tawny. Murrey, (of some.)	R	S	C	b. r.	2	2	m. Sep.	
15	Tawny, Hunt's . . Hunt's Early Tawny.	S	S	M	o. d. r.	2	1	m. e. Aug.	A very distinct sort, worthy of cultivation for its earliness.
	Temple, see *Elruge.*								
	Temple's, see *ib.*								
	Veitch's . . .	S							
	Vermash . . . True Vermash.	R	L	M	g. r.	2	1	e. Aug.	Tree tender & scarce; Elruge common for it.
	Vermash, see *Peterborough* and *Violette Hâtive.*								
	Violette d'Angervillières, see *Violette Hâtive.*								
16	Violette Grosse. . Grosse Violette Hâtive. Violette de Courson. Le Gros Brugnon, (in some parts of the Continent.)	R	S	M	p. g. r.	1	1	b. Sep.	Larger than the Violette Hâtive, but not so rich.
17	Violette Hâtive . . Violet. Early Violet. Brinion. Early Brugnon. Brugnon Red at the Stone. Lord Selsey's Elruge. Hampton Court. Large Scarlet. New Scarlet. Aromatic. Vermash, (of some.) Violette d'Angervillières Brugnon Hâtif. [Several others.]	R	S	M	p. g. r.	1	1	e. Aug. b. Sep.	This and the Elruge are two of the very best nectarines; the Violette Hâtive is much rayed with red at the stone; the flesh of the Elruge is nearly pale throughout. Both sorts force well.
	Violette Tardive . Violette Marbrée. Violette Panachée.	R	S	M					
18	White, New . . Neat's White. White. Flanders. Emmerton's New White. White, Cowdray. White, Large.	R	L	M	w.	1	1	e. Aug. b. Sep.	In a favorable soil and warm exposure, both sorts of White acquire excellent flavor, under other circumstances only indifferent; some of the synonyms may have been reproductions so similar as not to be distinguishable.
19	White, Old. White.	R	L	M	w.	1	1	e. Aug. b. Sep.	
	Williams's Orange, see *Pitmaston Orange.*								
	Williams's Seedling. see *Pitmaston Orange.*								

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CORRESPONDENTS are particularly requested to let us have their articles as early in the month as possible. All communications should be handed in by the 15th, at the very latest, to insure their insertion in the number for the succeeding month. We are determined to perform our part in the undertaking, in punctually issuing on the first of every month; and it is on this account that we want communications to be sent in at rather an early date, to suit the time of publication. *We* will "never give up the ship," until the elements (the public) which bear her up on the broad waters of society, shall become dried up, and cease to afford the necessary medium through which the vessel can speed on her onward course.

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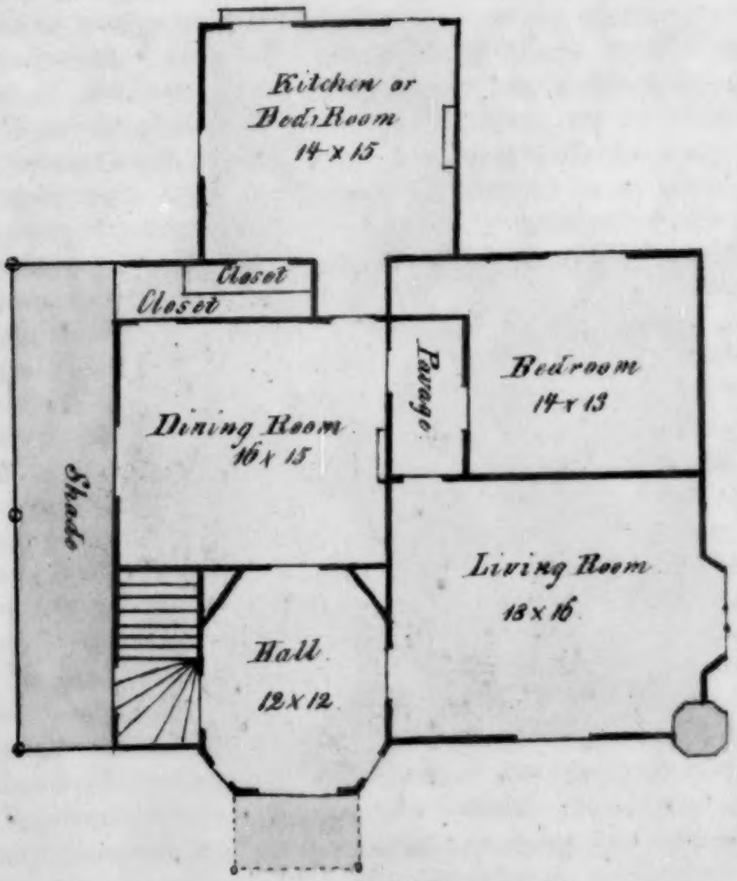

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